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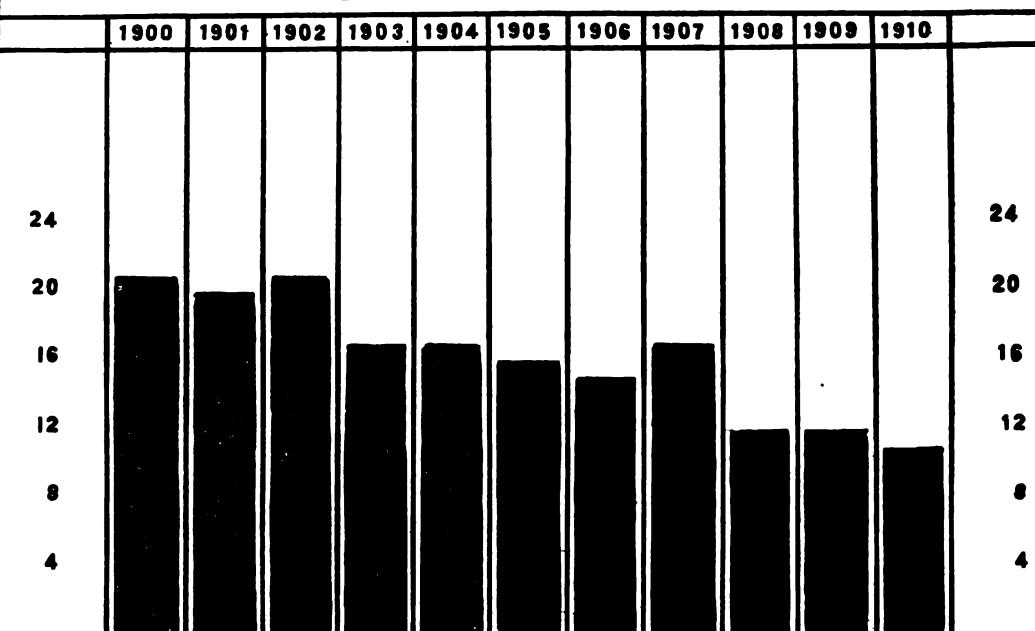
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## DEATH RATE TYPHOID FEVER

PER 100,000 POP.

## CITY OF NEW YORK



BUREAU OF RECORDS

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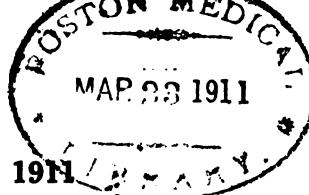








R.M.T.



Vol. I

JANUARY, 1911

No. 1

# MONTHLY BULLETIN OF THE DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK



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**BOARD OF HEALTH.**

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ALVAH H. DOTY, M. D.....*Health Officer of the Port.*

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EUGENE W. SCHEFFER, *Secretary.*

MONTHLY BULLETIN  
OF THE  
Department of Health of the City of New York

*All communications relating to this publication should be addressed to the Editor,  
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Vol. I

NEW YORK, JULY, 1911

No. 7

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VITAL STATISTICS AND THE PUBLIC HEALTH.

The present issue of the BULLETIN is devoted to the publication of the results of a special inquiry conducted at the invitation of the Commissioner and the Board of Health into the organization, methods and needs of the Bureau of Records of the Department of Health. This Bureau has, for many years, and through many changes in the form of organization of the Department of Health, been the official registration office in which are recorded the births, marriages and deaths occurring in New York City. Notable expansion and improvement in many other branches of the Department has left the Bureau of Records in substantially the same condition as for many years past, although it is called upon for an ever-increasing amount of regular and special work. At the suggestion of the Registrar of Records, the Commissioner, in July, 1910, sought and obtained the voluntary co-operation of several of the most eminent statisticians of the country, to conduct an investigation and recommend improvements in the methods of tabulating and publishing the vital statistics of the City. The Department of Health and the City of New York were indeed fortunate in being able thus to command the services of such distinguished experts as Prof. Walter F. Wilcox, of Cornell University, Consulting Statistician of the New York State Department of Health; Prof. C. E. A. Winslow, of the College of the City of New York, formerly connected with the Massachusetts Institute of Technology and well known for his interest and services in the cause of public health; Dr. Cressy L. Wilbur, Chief Statistician of the Federal Department of Commerce and Labor; and Dr. Robert S. Tracy, who retired from the position of Registrar of Records in the Department of Health in 1901 after 31 years of eminent and scholarly services. From the Department of Health, Dr. William H. Guilfoy, Registrar of Records and later Dr. Hermann M. Biggs, General

Medical Officer, and Dr. S. Josephine Baker, Director of Child Hygiene, were added to the membership of the Committee. This Advisory Board of Statisticians organized in October, 1910, by the election of Dr. Tracy as Chairman and held a number of meetings throughout the winter and spring, submitting in June, 1911, its final report which is printed in full in the following pages.

#### A CONSTRUCTIVE INVESTIGATION.

Intelligent self-criticism is the first condition of progress whether of an individual, a corporate organization, or a people. The rule does not fail in its application to the Department of Health, the branch of our municipal government which perhaps, more directly than any other, is concerned with the improvement of social conditions. The Department has, from time to time, been subjected to much criticism, some of it fair and deserved, resulting in definite improvements, but much of it uninformed, biased and not conceived in the public interest. From the present study of the statistical work of the Department, only good can come, because this criticism, while searching and impartial, has been conducted by specialists of the highest character and attainments, who have had in view solely the improvement of statistical methods, both in New York City and in the country at large, and unlike some of the critics and investigators of the present day, have had nothing to gain personally from their work.

#### VITAL STATISTICS FUNDAMENTAL TO PUBLIC HEALTH WORK.

The able discussion of the relation of vital statistics to the public health movement which is embodied in the introductory part of the Committee's report, will be read with interest and profit even by those persons, happily growing fewer in number, who are frightened by the mere word "statistics." This treatment of the subject gives in untechnical language, a statement of the principles involved which leaves no room for addition or comment.

Statistics of births, marriages and especially deaths, adequately gathered, and dissected by intelligent and purposeful analysis, are as indispensable to the establishment of the proper direction of the public health movement as is the daily computation of latitude and longitude to the progress of an ocean liner. Vital statistics, in the war of society against disease, is the charting of the enemies' country, the indispensable groundwork laid by the social engineer, which must be finished in the dull workshop of mathematical calculations before brilliantly executed assaults can bring glory to the field forces.

The report clearly points out the unique opportunity and duty of New York City in this field. Notable advances in the municipal and national registration of vital statistics in Europe have placed many countries a generation ahead of the United States. Improvements have recently been made in Federal Census Service, but in our numerous, disconnected and independent State and local jurisdictions, there is great need of the shining example which some prominent city might set by the adoption of an ideal system of vital statistics. That such an example would be the cause of widespread improvement, cannot be doubted, in view of the success of other governmental reform movements through a process of imitation. The general adoption of the Public Service Commission idea, after it had originated in New York and Wisconsin, is a case in point, as is also the rapid spread of the commission form of city government since its beginning in Galveston.

#### THE COMMITTEE'S RECOMMENDATIONS.

Briefly, the report urges the reorganization of the Bureau of Records as a Bureau of Vital Statistics with three co-ordinate divisions. A Division of Records would take over the duties of the present Bureau in collecting and recording certificates of births, marriages and deaths and would carry on the large amount of detailed clerical work involved therein. The essential expansion of the statistical activities of the Department recommended by the Committee would consist in the establishment of a new Division of Statistical Research, devoted solely to the study of the facts gathered by the Division of Records, and the making of careful and timely analytical investigations and comparisons of the figures in order to furnish the basis for directing the sanitary activities of the Department into the most useful and promising channels.

A third division is suggested, to undertake the departmental functions of publication and education, spreading broadcast, in a more modern and efficient manner, the results of the scientific work of the Department and, by the dissemination of information on sanitary subjects, greatly extending the effective scope of the efforts of the Board of Health to prevent disease and suffering.

Before such a plan can be put into effect, improvements are necessary in the methods of taking and publishing the census figures of population which form the basis of all statistical work. Pending the taking of what is hoped will be an adequate State census in 1915, it is proposed to use the figures of the Federal census of 1910, tabulating the statistics of the City on the basis of some 700 local units of area as established by the Census Bureau.

## THE VALUE OF THE REPORT.

Previous to any official action by the Board of Health upon this report, it is perhaps not fitting to enter into a further discussion of its findings. There can be no question, however, aside from possible differences of opinion in regard to details, as to the accuracy with which this report describes two of the main needs of the Department of Health; first, the necessity of more and better statistical research as a basis for the economical and efficient expenditure of public funds for sanitary purposes, and secondly the need of still furthur improvement in the methods by which the Department attempts to reach and educate the public in matters concerning health.

REPORT OF THE  
ADVISORY COMMITTEE OF STATISTICIANS

Submitted to the Board of Health

JUNE 20, 1911.

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TO THE BOARD OF HEALTH,  
DEPARTMENT OF HEALTH,  
NEW YORK CITY.

GENTLEMEN:

You have asked the undersigned Board of Consulting Statisticians to present for your consideration "a comprehensive scheme for the development of the work of the Bureau of Vital Statistics." With the assumption implied in this request that the work of the Bureau of Vital Statistics is not adequately developed we heartily agree. A starting point for our recommendations may be furnished by assigning some reasons for this condition.

INADEQUATE DEVELOPMENT OF THE BUREAU OF RECORDS.

1. During the last few years nearly every other division of the Department of Health has undergone some such development as your resolution contemplates.
2. While no such expansion has come to the Bureau of Vital Statistics the routine administrative duties of its head have increased rapidly with the growth of the city and have crowded the less peremptory work for which we plead into the fragments and corners of an overworked man's time.
3. The proper use of vital statistics as an aid to public health presupposes a comparison with census figures of population and in the past no such figures to the extent and in the detail needed have been obtainable.

VITAL STATISTICS AND THE PUBLIC HEALTH.

What is the peremptory need for developing the work of the Bureau of Vital Statistics? Vital statistics is the bookkeeping of the public health movement. Accurate and thorough statistical data are as essential for the wise administration of a Health Depart-

ment as bookkeeping for the conduct of a business. The head of a firm asks of his bookkeeper more than a statement of general results. He needs to know what lines of effort and expense have yielded the best returns and what, if any, have been conducted at a loss. Likewise the Department of Public Health asks of its bookkeeping division what causes of death are increasing and what are decreasing, what lines of its effort are most effective in diminishing disease and saving lives, what occupations are so unhealthy as to call for special legislation to protect the workers therein, what races and stocks and what districts in New York City invite and seem likely to reward special sanitary supervision. All these and many other like questions can be answered only by a properly developed system of vital statistics. Only the first of those mentioned and only a small proportion of the longer list that might be given is answered even approximately by the present vital statistics of the Department.

Between ordinary bookkeeping and vital statistics, however, there is this important difference. The methods of the bookkeeper are simple and have been well worked out and standardized. The problems of vital statistics are changing and growing more and more complex. Sound progress demands constant study of such new and vital questions as those which concern the enormous difference in the infant death rate in various sections of New York City, the heavy burden of tuberculosis upon certain special industries and the prevalence of such puzzling diseases as infant paralysis. It is to meet these needs that we urge the creation of a division of statistical research.

Furthermore it is necessary that the results of the analysis of vital statistics should be presented—not to a single employer but to the whole community. Public health work is becoming more and more largely educational in its methods. The most hopeful fields for the expenditure of public funds in health protection, namely, the prevention of tuberculosis and of infant mortality, are precisely the fields where popular education is most essential. The fight can only be won by spreading the latest and best sanitary knowledge among the mothers who bring up the babies and the men who work in the factories and sleep in the tenements. An educational campaign of this character carried on by Chicago Health Department has made it notable throughout the country.

Both for the proper study of its own statistics and for the presentation of its results to the public the present equipment of the New York Department of Health is inadequate. The mere handling of the routine mass of material which passes through the present Bureau of Records occupies all the energies of its staff and its Director and leaves no time for advance along new lines. In regard to publicity New York is notably behind many other American municipalities. Its scientific policies are models for every city on this side of the water and in certain special fields, as in relation to the control of tuberculosis, it has undertaken very effective educational work. As a whole, however, the Department has most inadequate and ineffective means of contact with the public from whom it must derive its support and through whose active co-operation alone it can achieve the largest results.

## PROPOSED REORGANIZATION.

The Board of Advisory Statisticians therefore recommends that the present Bureau of Records be reorganized as a Bureau of Vital Statistics with three divisions, a Division of Records, which will continue the work of the present Bureau, a Division of Research which will examine the statistical results of the Department's past and current efforts and extend the work of the Bureau by studying the most effective methods of attacking new problems of disease, and a Division of Publicity which will keep the public in touch with what the Board is doing and enlist them in the movement for healthy living which must so largely be a matter of individual support. To do this work properly would require an annual appropriation of between \$40,000 and \$50,000; but the Board of Advisory Statisticians desires to register its belief that in no other way could this sum be so expended as to yield an equal return in human life and health.

## VITAL STATISTICS IN EUROPE AND AMERICA.

For many years past and almost until the present day statistical work of the sort described, or what may perhaps be called the higher work in vital statistics, has been almost impossible in the United States because it presupposes the energetic co-operation of different governmental officers, sometimes Federal, sometimes State, sometimes municipal, and that co-operation except in a few localities has been almost absent. As a result of this lack of touch, the vital statistics of the United States is almost a generation behind that of the leading countries and cities of Europe. Long ago Great Britain, France, Germany, Switzerland, Italy and the Scandinavian countries developed great national or Federal systems of vital statistics and within the last generation many of the large European cities have built up supplementary systems of municipal vital statistics answering to the special needs of their own public health work. In the United States nothing really comparable to either of these developments is yet to be found but within the last ten years, co-operation in this field having been extended and invited by the Federal government, the States and cities have responded so promptly and actively that American progress in vital statistics since 1900 has probably been greater in amount in eleven years than in the preceding fifty. The main needs for the country now are, first, establishing in some American State or city a model system of vital statistics with emphasis upon these recent developments which have multiplied its value and, secondly, training a group of young men in the elements of this neglected branch of public health work who could take positions as statistical registrars in our States and cities. The need in New York City is for some means of measuring the effectiveness as well as the

cost of the various efforts made by the City Department of Health to diminish disease and death and to increase the length of life.

Vital statistics, for example, testifies that the average lifetime in New York City is 5.1 years less than in Massachusetts, these being summary results from the only two American life tables for a general population with which your committee is acquainted. The New York City table was made by an individual actuary and not like the Massachusetts table by the Government and we are not sure that the results of the two are comparable. In many foreign cities the periodic construction of life tables for the total population is an important branch of vital statistics and measures the net effect of sanitary progress in prolonging life.

European vital statistics testify in a convincing way that to segregate advanced cases of tuberculosis is the main means of diminishing the ravages of this disease in the community, a means so effective as to produce a marked decrease wherever it is used and whatever other preventive measures are employed or not employed. On this campaign we are spending millions of money in the country and hundreds of thousands in the city but are doing nothing to confirm or disprove this conclusion.

The vital statistics of Berlin have shown that the summer death rate of infants under one year of age fed on artificial food is ten times as great as that of infants who are breast fed. This has furnished the scientific basis for an educational campaign in Berlin in favor of mothers nursing their children which has almost, if not quite, reduced to zero the steady and very rapid increase in the use of artificial foods by Berlin mothers during the infants' first year and has done much to make the rapid decrease of the infant mortality in that city one of the triumphs of the modern public health movement.

We hope that the following argument and recommendations, necessarily somewhat detailed and technical, will be weighed with due regard to these general and preliminary considerations. The point of departure is:

## I. THE STATISTICAL RESULTS NOW PRODUCED BY THE BUREAU.

These are contained mainly in the Annual Reports of the Board of Health. The statistics in the Quarterly Reports and the Weekly Bulletins are so subsidiary and ephemeral that they have been disregarded. In the Annual Reports for 1908, the Report of the Bureau of Records extends over 351 pages, three-tenths of the total contents. Of these pages, however, 18 are of interpretative text, leaving 333 of tables.

These tables should be considered, first, with reference to the areas of tabulation, and, secondly, with reference to the facts tabulated.

1. *Areas of Tabulation.*—Some few pages give information for Greater New York alone, nearly three-fifths give information for New York and its boroughs, about one-third for the boroughs and a very few for the boroughs and wards.

The distribution by areas was as follows:

Tables in Bureau of Records Report for 1908 classified by area for which they speak.

Area of Tabulation.	Pages of Tables.	Per Cent.
New York City.....	7	2.1
City and Boroughs.....	198	59.5
Boroughs.....	118	35.4
Boroughs and Wards.....	10	3.0
 Total.....	333	100.0

2. *Facts Tabulated.*—The items of statistical information on a certificate of death properly filled out are 11 in number, as follows: Date of death, place of death, sex, age, race or color, place of birth, place of birth of father, place of birth of mother, marital condition, occupation, cause of death. Regarding each one of these items except occupations one or more tabulations will be found in the Report for 1908. Some have been tabulated in various combinations. Thus, one table classifies the deaths by age and sex of the decedents. The appended list (see Exhibit 1) shows what statistical tabulations are now made for deaths, births and marriages.

## II. AN IDEAL SYSTEM OF VITAL STATISTICS.

The foundation of important constructive work in vital statistics is a satisfactory census. The American States whose work in vital statistics has been preeminent in the past, Massachusetts, Rhode Island and Michigan, are those which have regularly taken State censuses of a sort to serve as a foundation for vital statistics. The most important constructive work for New York City in the field we are now considering was done by Dr. John Shaw Billings in his "Vital Statistics of New York City and Brooklyn, 1885-1890," published by the Federal Census Office in 1894. A main reason for the excellence of his monograph is found in the fact that he had available the Federal Census figures and the municipal registration returns and wove them together into a coherent analysis. We go so far as to say that no city can develop a good system of vital statistics without a satisfactory census on which to build. The census may be taken by the city, the State or the nation, but in planning its questions and organizing its details the needs of the Department of Health must be kept in view.

The City of New York has never taken such a census as the City Department of Health needs. The police census of 1895 was far too narrow in scope and that was the best municipal census ever taken in New York. The State of New York has not taken such a census since 1875. For the purpose of the City Department of Health the State counts of 1892 and 1905 were even less satisfactory than the City census of 1895. The State took censuses in 1895, 1865 and 1875 which were superior to those taken up to that time by other American States and, if the series had been continued, it would have furnished an excellent basis for the City's present work in vital statistics.

The constitution of the State prescribes an enumeration of the inhabitants in 1915. To the possibility of turning this enumeration to the City's account four or five years hence we shall return later, but for the present it is of no importance.

The only available source for the requisite foundation is the Federal census of 1910. If the information regarding New York City gathered by that census were to be published and available to no greater extent and in no more serviceable form than in 1900, the outlook would be unsatisfactory. But in three important respects changes for the better have been made or are contemplated. 1. The Federal Census Bureau is now a permanent office and all the records for the censuses of 1900 and 1910 are preserved for use as needed. 2. It is planning to compile and publish certain items of information for areas in most cases of 40 acres or  $\frac{1}{16}$  of a square mile but in sparsely settled districts of two or three times that size. These 40 acre tracts will include 7 or 8 Manhattan blocks. There will be 708 such tracts in the entire city. (See Exhibit No. 2). Such a publication would greatly facilitate the local studies which are an important part of municipal vital statistics. 3. The Census Bureau also proposes to render its unpublished information available to local offices on payment by them of the expense of compiling it. (See Exhibit No. 3). As a result of these three changes it seems likely that the Federal census of 1910 will make available almost for the first time the data upon which an adequate system of vital statistics can be built in New York City. At least it will be far better than anything now obtainable and will serve well until superseded by the State census of 1915.

Why does the City Department of Health need a census as the basis of its work in vital statistics? Vital statistics is mainly a system of rates or ratios between the number of times an event of a certain kind (birth, marriage or death) occurs in a community or a part of it in the course of a year and the number of persons living in a given group of the population. To develop this system of ratios the population in question must be divided and subdivided into numerous classes (sex, age, birthplace, marital condition, etc.), and the births, marriages or deaths, but especially the deaths, divided and subdivided in similar ways, and the ratios computed between the number of births, marriages or deaths recorded during a year and the population in which they occur.

The first rough measure of sanitary condition is the death rate or average number of persons dying in a year to each thousand of the living population. But the death rate of Greater New York or Manhattan Borough tells little. What is needed in addition is the death rate of every part of the city with a population and deaths numerous enough to give a significant basis of comparison. How great that population must be is decided partly by experience and partly by mathematics. Let us assume that it is 10,000. Then we ought to have the death rate of each 10,000 people in the city and so of at least 400 districts. This would be given approximately by tabulating the deaths according to the 708 forty acre tracts of the census. The Department and the City would then know exactly where the death rate was abnormally high or low and would seek to

determine the causes, with a desire in the one case to remove them or decrease their influence and in the other to extend their scope.

In an ideal system of vital statistics what classifications of the population and of births, marriages and deaths should be made?

The classifications of deaths are of much greater importance than the classifications of births and marriages and should be made in much greater detail. The 11 statistical items given on the schedule may be presented separately or in combinations of two (e. g., sex and age), three (e. g., sex, age, race), four (e. g., sex, age, race, cause of death), or more. These different groupings have widely different values. The value of each should be estimated roughly and compared with the cost of obtaining it. If this proves impossible, the various combinations might at least be arranged approximately in order of value and new ones added to the tabulations as means are found adequate. It is impossible to state in advance exactly what tabulations ought to be made. But nearly every tabulation which is now made for the living population should be made also for the deaths and at the start few others. This rule and the additional one that the areas of tabulation in both cases should be as small as is consistent with getting a significant average are all that we can lay down in advance. These two rules alone, however, would multiply many times the range of the statistical work of the Department.

On the other hand, a principle of exclusion may be laid down. The Federal Census Bureau is tabulating and publishing the deaths and will soon tabulate and publish the births in New York City. In view of these facts some line of demarkation between the work of the two agencies is needed to prevent overlapping or duplication. We believe that most tabulations made by the City should be studies of conditions in various areas and among various classes of the population selected primarily with reference to their bearing upon the work of the City Department of Health, and that the tabulations made by the Census Bureau should treat New York as a whole or the several boroughs merely as population units in the country or the registration area. Should this principle be accepted, it would result in the discontinuance of many tables now published by the City and the substitution of others of greater value to public health work.

### III. STAGES IN THE PROGRESS FROM THE PRESENT SYSTEM TOWARDS THIS IDEAL.

1. Divide the City for purposes of tabulation into small sanitary districts, the boundaries of which should coincide wherever possible with those of the 708 forty acre tracts of the Census Bureau.

2. Tabulate the deaths, births and marriages in the City in 1910 and subsequent years by these tracts.

3. Establish a working agreement with the Census Bureau regarding the tabulations of deaths and births to be made by each, in order to avoid duplication.

4. Estimate the cost of producing each statistical table now published by the Bureau and consider whether the same amount of

money might be made to yield a better return to the City by changing the character of the table.

5. In selecting subjects for statistical investigation emphasize those upon which the attention of other divisions of the Department of Health is concentrated and those in regard to which public interest has been or can easily be aroused.

6. Plan to have the State enumeration of 1915 taken with reference to serving as a basis for the vital statistics of this City by adding to the schedule certain questions of local value, as has been done to great advantage in several foreign capitals.

#### IV. BENEFITS TO RESULT.

These may be grouped as benefits to the work of the Department, benefits to the City and benefits to the country.

The object of the Department is to improve the health and increase the longevity of the City's population. It seeks so to spend its income as to secure the best results in this direction. A study of the vital statistics of localities and of diseases shows where work is most needed and what sorts of work have secured the best results.

The main protection to life and health must come from the action of individuals and families. The greater hindrances to wise action on their part are poverty and ignorance. The Health Department can do much to dispel ignorance regarding health by reporting upon health conditions in various parts of the City and among various classes of the community. The basis for such publications must be mainly statistical.

In the country as a whole an interest in public health and in statistics of health is developing with unprecedented rapidity. The most serious drawbacks to advance in this direction are the lack of a model and the lack of men trained in vital statistics to take the lead. New York City is in a good position to produce this model and while doing so it might train men who would go out to other parts of the country and imitate or improve on its work.

New York City is a centre of higher education in medicine and in economics and statistics. From one or both of the groups of students gathered for these objects it should be easy to get young men of training, ambition and initiative who would give half of their time to the vital statistics of the City for a compensation below that paid for clerical service and comparing with what is paid by universities to the holders of fellowships. In such cases, like those of fellowships, a large part of the return would be found in the educational part of the work. Such men would require the aid of clerks to whom the more routine duties could be assigned.

#### V. ESSENTIALS OF A COMPREHENSIVE SCHEME.

As already indicated, the work of this developed bureau of vital statistics would fall naturally under three heads. It would retain the numerous complicated and exacting duties now performed by the bureau and calling for all the time and energy of one highly trained and competent man able to organize and supervise a con-

siderable clerical force. This branch retaining the functions would naturally retain the title of the present bureau and become the Division of Records.

It would take on also the very different and perhaps equally important duties of analyzing the statistical returns, correlating them with the figures of population and using them to obtain answers to the many questions that the Department and the public ought to put to the figures. This division we would call the Division of Research. Its head should be a man trained in modern statistical methods, familiar with but not wedded to the practice and the results of vital statistics in Europe, with initiative, judgment, enthusiasm for statistics and power to impart the same enthusiasm to others.

A very different sort of work needed in the bureau is that of interesting and educating the public, showing it how to support and co-operate in the Department's work, kindling a zeal for healthy conditions, individual, family, local and communal, and directing that zeal towards the most attainable ends by the surest and best means. The head of this work should be a man with newspaper training and the newspaper instinct, ready even to adopt measures that to some may seem to approach the sensational, if so be they accomplish the end.

## VI. SUMMARY AND RECOMMENDATIONS.

We propose then:

1. That the name of the present Bureau of Records be changed to the Bureau of Vital Statistics.
2. That the work of the Bureau be organized into three Divisions, a Division of Records, a Division of Research and a Division of Publicity.
3. That the Division of Records be charged with the duties of securing complete returns in the form of certificates of deaths, births, marriages and stillbirths; that the head of the Division in each borough be charged with the duty of obtaining from the decedent's medical attendant an accurate statement as to the cause of death, of issuing burial permits, of preparing and maintaining a complete registration of physicians and midwives practising in the borough, of preparing data wherefrom the vital statistics of the borough may be properly tabulated, of issuing and certifying to transcripts of said records, of prosecuting violations of the law as to the filing of certificates of deaths, births, marriages and stillbirths, of cross-indexing all certificates filed with him and of co-operating with the Director of the Division of Records in all matters pertaining to accurate registration of certificates and compilation of vital statistics.
4. That the Division of Research be charged with the duties of establishing between the statistics of deaths, births, and marriages supplied by the Division of Records and the statistics of the population of New York City supplied by the State or the Federal Government those co-relations in the form of ratios which are the essential content of nearly all scientific vital statistics; of so interpreting the vital statistics of New York City by the aid of these ratios as to make them measure the past successes and failures of public health

work and indicate new and desirable steps in the Department of Health's efforts to protect the public health; and of making any local or special studies that seem likely to help the work of the Department.

As examples we may mention special statistical investigations into the infant death rate in various sections of the City and among various foreign populations with relation to methods of feeding, into incidence of tuberculosis in dusty trades and other industries, into the relation of typhoid fever to the milk supply and the prevalence of flies, into the higher rate of pneumonia and similar diseases at dusty seasons and in dusty sections or into the spread of new diseases like infant paralysis.

5. That the Division of Publicity be charged with the duty of informing the public in regard to the meaning and purpose of the work of the Department. It should particularly aim at a comprehensive scheme of general education with the object to teaching the individual citizen how to protect his health and that of his family. To this end we recommend that the *MONTHLY BULLETIN* be issued in an edition of at least 10,000 copies and be remodelled and popularized in the effort to reach physicians, school teachers, clergy, social workers and other classes who should be leaders in public health movements. Still more general popular education should be attempted either through the systematic use of the newspaper or by the issue of a brief and catching weekly leaflet similar to the weekly bulletin which has been used so effectively in Chicago. The Director of the Division of Publicity might well be charged also with the editing of all the publications of the Department.

6. That the head of each of these Divisions should receive a salary of not less than \$5,000.

7. That the head of the Bureau of Vital Statistics (Registrar of Vital Statistics) in addition to his responsibility for its entire work should be in immediate charge of that one of the three divisions for which his experience and interest best fit him.

## VII. ESTIMATE OF THE COST.

The Board of Advisory Statisticians realizes that the financial aspects of the suggested reorganization rest with the Department of Health and the Board of Estimate. At the same time the following schedule is submitted as a suggestion of the general scale of the work as it has shaped itself in the deliberations of the Board.

1 Director of Divisions of Records.....	\$5,000
1 Director of Divisions of Research.....	5,000
1 Director of Divisions of Publicity.....	5,000
Additional salary to head of entire Bureau.....	1,000
2 Chief Statisticians at \$3,000.....	6,000
4 Junior Statisticians at \$1,800.....	7,200
10 Student Assistants (to give half time, \$600).....	6,000
Cost of additional tabulations.....	10,000
 Total.....	 \$45,000

We, the undersigned, members of the Advisory Committee on Vital Statistics, respectfully present this report for the consideration of your honorable body.

**ROGER S. TRACY, M. D., Chairman,**  
**WALTER F. WILLCOX,**  
**C. E. A. WINSLOW,**  
**CRESSY L. WILBUR, M. D.,**  
**HERMANN M. BIGGS, M. D.,**  
**Wm. H. GUILFOY, M. D.,**  
**S. JOSEPHINE BAKER, M. D.**

**Exhibit No. 1.****INFORMATION CONTAINED IN NEW YORK CITY DEPARTMENT OF  
HEALTH REPORT—1908.**

Item of Information	DEATHS.			
	Greater City only	City and Boroughs	Boroughs only	Boroughs and Wards
Date { month	....	846-57	....	....
week	841	....	....	....
Sex.....	....	{ 849-57 870-ff	....	....
Age— 5 classes.....	....	849-57	....	....
23 classes.....	....	870-ff	....	....
Race—Colored and Chinese.....	....	{ 849-57 870-ff	....	....
Place of birth.....	....	1020-1	....	....
Place of birth of par- ents.....	....	1021	....	....
Cause.....	....	858-1013	835-40*	1014-19
Accidents and negli- gence—method.....	....	....	1022-9	....
Month and sex.....	....	848-9	....	....
Month and age (5 periods).....	841	848-9	....	....
Month and race.....	....	848-9	....	....
Month and cause.....	....	846-57	....	....
Place of death.....	....	832-3	....	....
Weeks and main causes.....	841	....	....	....
Institutions.....	841	....	....	....
Sex and age.....	....	870-ff	....	....
Sex and race.....	....	{ 844 870-ff	....	....
Sex and general par- ent nativity.....	....	844	....	....
Sex and marital con- dition.....	....	845	....	....
Sex and cause.....	....	858-1013	....	....
Age and cause.....	....	858-1013	....	....
Race and cause.....	....	858-1013	....	....
Sex, age and cause..	....	858-1013	....	....
Sex, race and cause..	....	858-1013	....	....
Cause, birthplace and sex.....	....	....	{ Manhattan 1022-3	....
Suicide (method)....	1024-5	....	....	....
Age, nativity, cause for persons over 100.....	....	1041	....	....

\* Corrected and for main causes.

## BIRTHS.

Information	Greater City only	City and Boroughs	Boroughs only Manhattan only	Boroughs and Wards
Parent nativity.....	1,030	....	....	....
Month.....	1,032	....	1,032	....
Month and Illegitimacy.....	1,033	....	1,033	....
Month and plural births.....	1,033	....	1,033	....
Sex and race.....	844	....	....	....
Sex and general parent nativity.....	844	....	....	....
Month, sex and race	1,032	....	1,032	....
Month, sex and parent nativity.....	1,032-3	....	1,032-3	....

## MARRIAGES.

Month.....	1,034	....	1,034	....
Month and religious or civil ceremony.	1,035	....	1,035	....
Sex and race.....	844	....	....	....
Sex and marital condition.....	845	....	....	....
Month, sex and race	1,034	....	1,034	....
Month, sex and marital condition.....	1,034-5	....	1,034-5	....
Month, sex and general nativity.....	1,035	....	1,035	....

## Exhibit No. 2.

Boroughs	Assembly Districts	5 Tracts
Manhattan.....	31	220
Bronx.....	5	55
Brooklyn.....	23	324
Queens.....	4	76
Richmond.....	1	33
<hr/>		
Total.....	64	708

**Exhibit No. 3.**

61st Cong.  
3d Sess.

H. J. Res. 248

IN THE SENATE OF THE UNITED STATES,  
FEB. 7. 1911.

Read twice and referred to the Committee on the Census.

**JOINT RESOLUTION.**

Amending section thirty-two of the Act of Congress approved July second, nineteen hundred and nine, providing for the thirteenth and subsequent decennial censuses.

RESOLVED, By the Senate and House of Representatives of the United States of America in Congress assembled:

That section thirty-two of the act of Congress approved July second, nineteen hundred and nine, providing for the Thirteenth and subsequent decennial censuses, be amended by adding at the end thereof the following:

"That the Director of the Census is also authorized, at his discretion, upon the request of the chief executive officer of any State, Territory, county, municipality or other civil division, or of any religious, charitable or educational organization, to compile, from the official schedules collected by the Census Bureau, tables of statistics, which, in his judgment, will serve a public interest, but which would not, under the authority of law, be compiled as part of the official publications of the Census Bureau: Provided, That such special compilations shall not interfere with the prompt and proper compilation and publication of the statistics required by law; And provided, That before the compilation shall be delivered the actual clerical expense of compiling such statistics, plus ten per centum additional, shall be paid for such service by the civil authority or organization requesting the same, and that the amounts so received shall be covered into the Treasury of the United States, to be placed to the credit of and in addition to the appropriations made for taking the census; and the estimated clerical expenses of compiling such statistics, and ten per centum additional, shall be deposited with the Director of the Census with the request for such compilation, to secure payment therefor as aforesaid."

Passed the House of Representatives February 6, 1911.

Attest:

A. McDowell,  
Clerk.

## DEPARTMENT NOTES.

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### A LOW RECORD IN THE DEATH RATE.

Examination of the figures compiled by the Bureau of Records shows that the mortality for the week ending July 29, 1911, is the lowest on record for that week since the formation of the Greater City in 1898. The death rate of 14.10 per 1,000 is 15 per cent. lower than the lowest corresponding week for the past thirteen years, and 23 per cent. lower than the mortality for the corresponding week of last year. A decrease in the death rate occurred at all the age groups representing infants, children, adults and the aged. The infant mortality under one year of age was 156 per 1,000 in the past week against 235 per 1,000 for the corresponding week of last year, a decrease of 32 per cent. The infantile death rate from diarrhoea was almost 50 per cent. less during the past week as compared with the corresponding week of 1910.

### A HIGH RECORD IN POPULATION.

According to the periodic estimate of the Bureau of Records, New York City has just passed the 5,000,000 mark.

On August 3, 1911, the population of the City of New York will reach a total of 5,000,407; distributed by Boroughs as follows:

Manhattan.....	2,393,636
The Bronx.....	487,437
Brooklyn.....	1,716,852
Queens.....	312,630
Richmond.....	89,852
City of New York.....	5,000,407

The population of the Greater City July 1, 1898, was 3,272,418, and during these thirteen years the number of inhabitants has increased 53 per cent.

### PUBLIC EXHIBITIONS ON PREVENTION OF TUBERCULOSIS.

On July 18, 1911, the Department of Health, City of New York, inaugurated its fifth annual series of stereopticon exhibitions on the prevention of tuberculosis, at Crotona Park, Third and Tremont Avenues, Borough of The Bronx.

These exhibitions, which are to be given in the public parks and on the recreation piers of the Boroughs of Manhattan, The Bronx and Brooklyn, consist of one hundred and twenty-five colored and

suitably labeled lantern slides, descriptive of the essential facts concerning tuberculosis, viz., the extent of the disease, what tuberculosis is, the predisposing causes, the possible early symptoms, the importance of its early recognition, tuberculosis in children, how it spreads (methods of infection), treatment, what the Department of Health is doing in New York City to stamp out the disease, the means and methods of prevention, and instructions to the public.

The Committee on the Prevention of Tuberculosis of the Charity Organization Society is co-operating this year with the Department of Health, by providing a lecturer at each demonstration, to explain the pictures and to answer questions.

### **GARBAGE CANS MUST BE COVERED.**

Numerous complaints have been received of nuisances of odors and the breeding of flies due to failure to keep garbage cans properly covered, as required by Section 108 of the Sanitary Code. The Board of Health has accordingly undertaken the strict enforcement of this section, and wishes to warn all householders and other persons responsible for the care of garbage cans, that persons failing to comply with the requirements are liable to arrest. The following notice has been printed, and is being distributed by the inspectors of the Department, and the police officers of the Sanitary Squad, to householders throughout the City:

#### **NOTICE TO HOUSEHOLDERS.**

The Sanitary Code of this city requires any receptacle containing garbage or liquid substances, which shall be placed outside of a building, to be covered and kept covered until emptied by the Department of Street Cleaning.

You are hereby notified that any person who does not comply with the law is liable to arrest.

This notice is issued by

**THE DEPARTMENT OF HEALTH,  
CITY OF NEW YORK.**

### **CHOLERA IN NEW YORK.**

During the present month the Department has had to deal actively with Asiatic cholera for the first time in many years. Three authentic cases have occurred within the jurisdiction of the city authorities, the patients being subsequently removed to the Quarantine Hospital for treatment, in accordance with existing plans of co-operation between the Board of Health and the Health Officer of the Port.

The next number of the BULLETIN will be devoted to notes on the history, nature, and prevention of Asiatic cholera, and its previous outbreaks in New York City.

## CONTAGIOUS DISEASES.

Number of Cases Reported in the City of New York, by Boroughs, during Months ending June 31st,  
1910 and 1911.

	Manhattan.		Brooklyn.		Bronx.		Queens.		Richmond.		New York.	
	1910	1911	1910	1911	1910	1911	1910	1911	1910	1911	1910	1911
Diphtheria.....	886	609	450	368	168	162	80	73	9	9	1,593	1,221
Scarlet Fever.....	744	601	632	418	181	113	99	114	64	52	1,720	1,298
Measles.....	1,989	1,993	836	1,218	582	409	292	173	102	80	3,801	3,873
Chickenpox.....	404	263	238	237	39	56	24	15	26	14	731	585
Whooping Cough.....	88	114	97	107	5	24	8	12	44	9	242	266
Smallpox.....	3	1	....	....	....	....	....	....	....	....	3	1
Parotiditis.....	176	172	61	102	11	25	15	6	13	4	276	309
German Measles.....	181	104	115	18	34	29	5	5	3	2	338	158
<b>Totals.....</b>	<b>4,471</b>	<b>3,857</b>	<b>2,429</b>	<b>2,468</b>	<b>1,020</b>	<b>818</b>	<b>523</b>	<b>398</b>	<b>261</b>	<b>170</b>	<b>8,704</b>	<b>7,711</b>

required by law. This result has not been obtained without effort on the part of the officials of the Department and of the Corporation Counsel's Office. Since October 1, 1910, to date over three hundred actions have been begun against midwives and physicians, principally the latter, and 95 per cent. of the offenders have been punished by fines varying from \$10 to \$100.

There were 4,295 marriages reported during the month, against 3,793 during October, 1911, an increase of 502; in Manhattan the increase was 327, in Brooklyn 182, in The Bronx 16; in Queens the number decreased 22, and in Richmond 1.

## GENERAL SUMMARY:

## POPULATION, MARRIAGES, BIRTHS AND DEATHS, NOV., 1911.

Boroughs	Estimated Population† Bureau of the Census	Estimated Population† Dept. of Health	Certificates Received and Tabulated			Rate per 1,000 Based on Department Estimate			Corrected Death Rate *
			Marriages	B'ths	D'ths	Marriages	B'ths	D'ths	
Manhattan..	2,388,207	2,389,204	2,635	5,278	2,818	13.37	26.79	14.30	14.16
The Bronx..	470,486	483,224	247	1,066	496	6.22	26.86	12.50	11.54
Brooklyn....	1,703,566	1,710,861	1,165	3,663	1,921	8.29	26.07	13.67	13.90
Queens.....	305,407	310,523	179	657	272	7.02	25.76	10.66	11.80
Richmond...	89,199	89,573	53	161	113	7.20	21.88	15.22	14.81
City of N. Y.	4,956,865	4,983,385	4,279	10,825	5,620	10.45	26.45	13.73	.....

Boroughs	Manhattan.....	14.13	Death rate November, 1910
	The Bronx.....	13.68	
	Brooklyn.....	13.88	
	Queens.....	13.09	
	Richmond.....	14.34	
	City of N. Y.....	14.11	

\* The death-rate of each Borough is corrected by inclusion of the deaths of its residents in other Boroughs, and exclusion of deaths of residents of other Boroughs within its boundaries.

† The estimate of the Bureau of the Census is based upon the arithmetical method, that of the Department of Health upon the geometrical method of determining the increase in population for post-censal years.

‡ Includes 103 of non-residents of the City, which if deducted, would give a death rate for the City of 13.47 per 1,000.

## DEATHS ACCORDING TO AGE-GROUPS, NOVEMBER, 1911.

Boroughs	All Ages	Under 1 Year	1 Year and under 2 Years	Under 5 Years	5-15 Years	15-25 Years	25-45 Years	45-65 Years	65 Years and over	Colored	Chinese
Manhattan.	2,818	538	103	729	63	139	650	761	476	106	5
The Bronx..	496	68	18	97	10	35	115	144	95	13	..
Brooklyn...	1,921	326	83	475	61	94	387	507	397	49	1
Queens.....	272	53	4	64	8	14	52	76	58	9	..
Richmond..	113	18	2	26	6	2	18	40	21	2	..
City of N.Y.	5,620	1,003	210	1,391	148	284	1,222	1,528	1,047	179	6

REGISTERED MORTALITY FROM PRINCIPAL CAUSES, JANUARY, 1911.

	Manhattan		The Bronx		Brooklyn		Queens		Richmond		City of New York	
	Jan. 1911	Jan. 1910	Jan. 1911	Jan. 1910								
Total, all causes.....	3,548	3,555	645	630	2,228	2,421	367	362	173	122	6,961	7,090
1. Typhoid Fever.....	13	15	..	2	13	18	1	2	..	..	27	37
3. Malarial Fever.....	...	...	..	..	..	1	1	..	..	..	1	1
4. Smallpox.....	..	..	..	..	..	..	..	..	..	..	..	..
5. Measles.....	16	24	3	6	15	46	..	1	..	..	34	77
6. Scarlet Fever.....	25	63	4	10	35	72	1	4	..	1	65	150
7. Whooping Cough.....	16	3	2	3	7	6	1	5	3	..	29	17
8. Diphtheria and Croup.....	72	109	20	12	38	63	3	15	2	3	135	202
9. Influenza.....	48	23	14	7	72	16	15	1	3	..	152	47
10. Asiatic Cholera.....	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera Nostras.....	..	..	..	..	..	..	..	..	..	..	..	..
12. Other Epidemic Diseases.....	32	29	5	2	10	10	..	..	..	1	47	42
13. Tuberculosis Pulm.....	379	376	165	136	221	208	32	35	17	12	814	767
14. Tub. Meningitis.....	36	46	9	10	16	19	2	1	4	..	67	76
15. Other forms of Tuberculosis.....	28	25	2	3	15	16	..	4	1	..	46	48
16. Cancer, Malignant Tumor.....	176	155	22	22	96	102	10	16	5	3	309	298
17. Simple Meningitis.....	37	33	6	7	7	8	3	2	..	1	53	51
17a. Cerebro - Spinal Meningitis.....	13	18	3	5	4	2	2	1	..	..	22	26
18. Apoplexy, and Softening of Brain.....	82	39	10	28	33	29	5	4	4	2	184	102
19. Organic Heart Diseases.....	416	292	85	74	267	254	43	47	20	12	831	679
20. Acute Bronchitis.....	32	61	9	2	43	50	13	9	1	3	98	125
21. Chronic Bronchitis.....	7	13	1	2	31	31	2	1	..	1	41	48
22. Pneumonia (exc. Broncho Pneumonia).....	378	318	65	59	258	271	32	41	20	19	753	708
22a. Broncho Pneumonia.....	276	330	34	34	136	222	23	28	17	10	486	624
23. Other Respiratory Diseases.....	48	49	5	6	17	22	4	3	3	4	77	84
24. Diseases of the Stomach (Cancer excepted).....	22	21	4	1	17	13	..	5	2	..	45	40
25. Diarrhoeal diseases (under 5 years).....	92	75	9	11	47	59	5	5	1	..	154	150
26. Appendicitis and Typhlitis.....	23	24	3	7	17	20	4	2	1	1	48	54
27. Hernia, Intestinal Obstruction.....	32	24	8	4	11	17	1	1	2	..	54	46
28. Cirrhosis of Liver.....	40	67	7	10	50	46	4	4	1	1	102	128
29. Bright's Disease and Nephritis.....	260	249	27	48	198	205	40	18	26	9	551	529
30. Diseases of Women (not Cancer).....	17	15	..	1	8	8	1	..	..	1	26	25
31. Puerperal Septicaemia.....	13	16	4	1	8	9	1	3	2	..	28	29
32. Other Puerperal Diseases.....	19	25	1	4	20	10	..	4	..	..	40	43
33. Congenital Debility and Malformations.....	188	229	29	27	110	110	22	17	5	9	354	392
34. Old Age.....	29	26	5	5	23	27	10	8	4	2	71	68
35. Violent Deaths.....	151	192	23	16	74	93	20	21	6	4	274	326
a. Sunstroke.....	..	..	..	..	..	..	..	..	..	..	..	..
b. Other Accidents.....	139	171	21	16	65	85	18	21	6	3	249	296
c. Homicide.....	12	21	2	..	9	8	2	..	..	1	25	30
36. Suicide.....	31	39	2	7	22	19	6	3	1	1	62	69
37. All other causes.....	492	522	59	62	292	319	61	50	20	20	924	973
38. Ill-defined causes.....	22	28	3	1	1	2	1	2	2	2	29	35

**REGISTERED MORTALITY FROM ALL CAUSES AND CERTAIN  
INFECTIOUS DISEASES, BY WARDS, NOVEMBER, 1911.**

**BOROUGH OF MANHATTAN.**

Wards	Area in Acres	Population U. S. Census 1910	Number of Persons to the Acre	Typhoid Fever	Smallpox	Measles	Scarlet Fever	Diphtheria and Croup	Pulmonary Tuberculosis	Lobar Pneumonia	Broncho- Pneumonia	Diarrhoeal Diseases	All Causes	Deaths of Children Under 5 Years
1	154.0	9,750	63.0	...	...	2	1	...	2	4	2	...	27	6
2	81.0	933	11.5	...	...	...	...	...	...	...	...	...	3	...
3	95.0	1,915	20.2	...	...	...	...	...	...	...	...	...	4	...
4	83.0	21,336	257.1	...	...	...	...	...	8	3	7	1	34	13
5	168.0	5,666	33.7	...	...	...	...	...	2	...	...	...	11	1
6	86.0	19,670	228.7	1	...	...	1	1	11	2	3	2	39	9
7	198.0	102,101	515.6	2	...	1	1	3	13	4	9	6	100	39
8	183.0	33,182	181.4	...	...	...	...	3	5	2	...	3	36	13
9	322.0	64,909	201.6	1	...	...	...	...	12	10	5	5	119	21
10	110.0	66,439	604.0	1	...	1	1	10	10	5	8	3	87	32
11	196.0	136,548	696.7	1	...	1	4	9	8	8	3	5	84	33
12	5,504.0	806,648	146.6	5	...	1	4	10	75	46	58	21	843	203
13	107.0	64,651	604.3	...	...	...	...	5	1	2	3	3	42	11
14	96.0	38,321	399.3	...	1	...	1	3	1	1	11	3	45	22
15	198.0	30,584	154.5	...	...	...	...	7	1	2	...	...	43	8
16	349.0	55,926	160.2	...	...	...	...	10	4	2	1	...	75	6
17	331.0	172,334	520.6	...	...	...	4	14	10	12	8	...	132	48
18	450.0	62,821	139.6	1	...	1	3	19	5	2	5	...	118	23
19	1,481.0	292,950	197.7	2	...	...	4	60	24	28	25	...	457	153
20	444.0	73,308	165.1	2	...	...	2	14	11	7	4	...	102	16
21	411.0	62,345	151.7	1	...	1	...	10	7	4	...	...	103	20
22	1,529.0	209,154	136.8	6	...	1	...	36	22	11	8	...	314	52
Total..	12,576.0	2,331,491	185.4	23	...	7	9	36	325	172	176	103	2,818	729

**BOROUGH OF THE BRONX.**

23	4,267.0	268,880	63.0	3	...	1	6	75	17	10	3	282	58	
24	22,255.8	162,062	7.3	1	...	2	1	5	39	16	8	214	39	
Total..	26,522.8	430,942	16.2	4	...	2	2	11	114	33	18	5	496	97

## BOROUGH OF BROOKLYN.

Wards	Area in Acres	Population U. S. Census 1910		Number of Persons to the Acre	Typhoid Fever	Smallpox	Measles	Scarlet Fever	Diphtheria and Croup	Pulmonary Tuberculosis	Lobar Pneumonia	Broncho- Pneumonia	Diarrhoeal Diseases	All Causes	Deaths of Children Under 5 Years	
		1	2													
1	233.0	21,851	93.8	1											38	6
2	97.7	6,894	70.6												14	4
3	161.4	15,910	98.6												20	4
4	111.3	10,477	94.1												22	4
5	119.4	19,401	162.5												33	18
6	302.9	46,437	153.3	1											75	26
7	458.5	44,037	96.0												57	16
8	1,843.2	82,687	44.9	2											95	31
9	623.6	50,501	81.0												58	13
10	318.7	41,238	129.4	1											58	19
11	252.6	21,659	85.7												34	5
12	663.1	29,262	44.1												51	10
13	230.3	30,091	130.7												28	4
14	282.6	33,329	117.9												58	36
15	244.8	35,887	146.6												41	16
16	244.8	68,244	278.7												47	18
17	823.3	70,346	85.5	1											69	26
18	873.0	35,708	40.9												41	15
19	413.8	44,860	108.4												34	8
20	461.4	27,463	59.5												33	7
21	483.2	78,741	163.0												56	16
22	1,361.6	81,283	59.7												96	34
23	736.0	65,561	89.1												55	9
24	1,198.5	80,466	67.2												66	14
25	567.8	63,597	112.0												67	15
26	3,590.2	177,963	49.5												144	46
27	400.7	76,000	189.6	1											52	17
28	884.4	77,451	87.6	1											104	18
29	3,800.0	72,351	19.0												77	16
30	5,401.1	76,406	14.1												77	18
31	6,312.3	30,988	4.9												44	6
32	5,479.5	17,419	3.2												21	6
Total..	38,977.8	1,634,508	41.9	7	13	24	19	205	84	101	113	1,763	501			

## BOROUGH OF QUEENS

		Wards	Area in Acres	Population U. S. Census 1910	Number of Persons to the Acre	Population U. S. Census 1910	Number of Persons to the Acre	Typhoid Fever	Smallpox	Measles	Scarlet Fever	Diphtheria and Croup	Pulmonary Tuberculosis	Lobar Pneumonia	Broncho- Pneumonia	Diarrhoeal Diseases	All Causes	Deaths of Children Under 5 Years
1	4,650.0	61,763	13.3					3										27
2	14,700.0	105,219	7.2					2										26
3	22,000.0	37,171	1.7					1										14
4	36,600.0	67,412	1.8					3										31
5	3,770.0	12,476	3.3					2										6
Total..	81,720.0	284,041	3.5					5			1	4	34	4	15	50	320	104

## BOROUGH OF RICHMOND

		Wards	Area in Acres	Population U. S. Census 1910	Number of Persons to the Acre	Typhoid Fever	Smallpox	Measles	Scarlet Fever	Diphtheria and Croup	Pulmonary Tuberculosis	Lobar Pneumonia	Broncho- Pneumonia	Diarrhoeal Diseases	All Causes	Deaths of Children Under 5 Years	
1	3,340.0	27,201	8.1			1											
2	4,130.0	16,871	4.1			1											
3	10,050.0	19,812	2.0			1											
4	8,180.0	10,662	1.3			2											
5	10,900.0	11,423	1.0			2											
Total..	36,600.0	85,969	2.3			2											

## • CONTAGIOUS DISEASES.

Number of Cases Reported in the City of New York, by Boroughs, during Months ending November 30th, 1910 and 1911.

	Manhattan.		Brooklyn.		Bronx.		Queens.		Richmond.		New York.	
	1910	1911	1910	1911	1910	1911	1910	1911	1910	1911	1910	1911
Diphtheria.....	528	408	349	388	173	106	88	64	24	36	1,162	1,002
Scarlet Fever.....	226	211	304	201	70	82	31	38	29	7	660	539
Measles.....	275	461	147	138	31	43	21	8	5	1	479	651
Chickenpox.....	131	335	121	173	45	45	7	53	37	16	341	622
Whooping Cough.....	48	86	50	38	10	11	1	5	23	4	132	144
Smallpox.....	...	1	...	2	...	...	...	1	...	...	...	4
Parotiditis.....	63	80	13	80	13	19	2	4	2	1	93	184
German Measles.....	...	...	12	1	5	2	...	...	...	1	3	18
Totals.....	1,271	1,594	985	1,023	344	306	150	173	120	66	2,870	3,164

## COMMUNICABLE DISEASES.

Number of Cases Reported in the City of New York, by Boroughs, during Months ending September 30th,  
1910 and 1911.

	Manhattan.		Brooklyn.		Bronx.		Queens.		Richmond.		New York.	
	1910	1911	1910	1911	1910	1911	1910	1911	1910	1911	1910	1911
Tuberculosis.....	1,625	1,293	615	400	202	147	92	66	20	17	2,554	1,923
Typhoid Fever.....	397	270	181	143	49	71	56	29	11	8	694	521
Cerebro-Spinal Meningitis.....	10	11	3	2	3	1	2	3	....	2	18	19
Erysipelas.....	4	7	18	10	1	....	....	1	....	....	23	18
Infantile Paralysis.....	.....	34	....	10	....	11	....	....	....	3	....	58
<b>Totals.....</b>	<b>2,036</b>	<b>1,615</b>	<b>817</b>	<b>565</b>	<b>255</b>	<b>230</b>	<b>150</b>	<b>99</b>	<b>31</b>	<b>30</b>	<b>3,289</b>	<b>2,539</b>

## MONTHLY METEOROLOGICAL SUMMARY.

MAY, 1911.

Observations for the Department of Health of the City of New York, from the  
N. Y. Meteorological Observatory, Central Park.

Day	Temperature Degrees Fahrenheit			Moisture			Wind*			Actual Hours Sun- shine	
	Max.	Min.	Mean	Rel- ative Hum- idity	Depth in Inches		Av'ge H'rly Vel. Miles	Max. Vel. Miles	Prevail- ing Direct'n		
					Rain	Snow					
M 1	70	58	62.1	91.7	.08	....	3.8	9	S E	4	
T 2	64	41	53.8	70.6	....	....	13.8	19	N W	11	
W 3	50	37	43.1	53.1	....	....	12.1	22	W N W	12	
T 4	53	38	45.5	59.5	....	....	7.5	13	W	9	
F 5	61	44	51.2	55.8	....	....	6.2	12	N	14	
S 6	66	46	55.7	54.7	....	....	5.2	11	S	14	
S 7	73	49	60.8	46.4	....	....	4.7	10	W N W	14	
M 8	67	55	59.0	56.3	.05	....	3.6	10	N	8	
T 9	61	53	56.7	83.2	.03	....	4.1	7	S	5	
W 10	78	59	65.5	63.6	....	....	6.2	12	N N W	11	
T 11	76	62	69.0	69.3	.02	....	6.1	12	SE	12	
F 12	76	65	69.5	79.7	....	....	4.6	8	SE	10	
S 13	74	57	67.0	67.2	.01	....	5.3	12	N W	12	
S 14	67	53	59.5	59.8	....	....	6.6	10	SE	14	
M 15	67	50	60.2	69.0	....	....	3.8	9	S S E	11	
T 16	74	62	67.0	84.2	.07	....	3.2	10	W	7	
W 17	71	60	65.3	83.9	.06	....	3.2	9	SE	8	
T 18	83	61	70.4	85.8	.09	....	3.6	11	SE	11	
F 19	79	66	72.8	86.1	....	....	3.9	10	SE	10	
S 20	69	62	65.6	95.9	....	....	4.6	9	E N E	5	
S 21	82	64	71.0	91.6	....	....	1.9	6	N E	13	
M 22	86	68	75.0	83.6	....	....	1.8	7	S S E	14	
T 23	80	61	71.5	86.6	....	....	6.3	13	N E	14	
W 24	63	59	60.7	94.0	.04	....	5.7	10	E N E	3	
T 25	74	60	67.1	77.9	....	....	5.3	11	N N W	12	
F 26	73	62	67.7	82.6	....	....	4.3	9	E N E	12	
S 27	78	63	69.2	75.5	....	....	5.2	10	E N E	14	
S 28	81	61	71.4	70.2	....	....	3.2	9	S	14	
M 29	81	67	74.4	79.3	....	....	6.2	13	W S W	14	
T 30	78	69	73.5	78.4	....	....	6.0	13	E N E	9	
W 31	69	66	67.1	97.8	.80	....	4.2	9	N E	0	
Month Mean.	....	....	64.13	75.26	Total	Total	....	....	Total	321	

Latitude 40 deg. 45' 58" N. Longitude 73 deg. 57' 58" W.; Height of Instruments above ground; 53 feet, above sea, 97 feet.

\* In the maximum velocity of wind column is given the maximum travel of wind for one hour.

# DIRECTORY OF THE DEPARTMENT OF HEALTH.

**Headquarters**, S. W. Corner 55th Street and Sixth Avenue, Manhattan.

Office Hours—9 a. m. to 5 p. m. Saturdays 9 a. m. to 12 m.

Telephone—4900 Columbus.

## BOROUGH OFFICES.

**Borough of Manhattan**....55th Street and Sixth Avenue.....Telephone 4900 Columbus  
**Borough of The Bronx**....3731 Third Avenue.....Telephone 1975 Tremont.  
**Borough of Brooklyn**....Flatbush Avenue and Willoughby St. Telephone 4720 Main.  
**Borough of Queens**....372-374 Fulton Street, Jamaica, L. I. Telephone 1200 Jamaica.  
**Borough of Richmond**....514-516 Bay Street, Stapleton, S. I. Telephone 440 Tompkins-ville.

The Borough Offices are open from 9 a. m. to 5 p. m.

Saturdays from 9 a. m. to 12 m.

**Emergency Calls in Cases of Contagious Disease** are received at any hour, Sundays and holidays included, *e. g.*, requests for removal of patients to hospitals; for injection of antitoxin, for intubation, etc.

## LABORATORIES.

**Diagnosis Laboratory**, 55th Street and Sixth Avenue.

Telephone 4900 Columbus.

Office Hours 9 a. m. to 5 p. m. Saturdays 9 a. m. to 12 m.

For the examination of specimens of sputum, throat cultures, blood smears, etc., from suspected cases of tuberculosis, diphtheria, malaria, typhoid fever and other communicable diseases.

Specimens for examination must be left at one of the Collection Stations before 4 p. m. in the Boroughs of Manhattan, The Bronx and Brooklyn; before 3 p. m. in the Borough of Richmond, and before 1 p. m. in the outlying sections of the Borough of Queens.

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The following Laboratories are located at the Foot of East 16th Street. Telephone 1600 Stuyvesant.

**Research Laboratory.**  
**Vaccine Laboratory.**

**Chemical Laboratory.**  
**Drug Laboratory.**

## TUBERCULOSIS CLINICS.

### **Manhattan.**

<b>Name</b>	<b>Address</b>	<b>Hours</b> (Sundays and Holidays Excepted)
Main Clinic.....	965 Sixth Avenue..... Telephone 4900 Columbus	Daily.....10-12 a. m. Daily.....2- 4 p. m. Thursday....8- 9 p. m.
East Side Clinic.....	81 Second Street..... Telephone 5586 Orchard (Clinic for Italians only.)	Daily.....10-12 a. m. Daily.....2- 4 p. m. Tuesday....8- 9 p. m. Saturday....8- 9 p. m.
Italian Clinic.....	339 East 109th Street..... Telephone 5854 Harlem	Daily.....10-12 a. m. Tuesday....8- 9 p. m.
Day Camp.....	Ferryboat "Middletown," foot East 91st Street.	

### **The Bronx.**

Northern Clinic.....	St. Paul's Place and 3d Avenue...	Daily.....2- 4 p. m. Telephone 1975 Tremont	Thursday....8- 9 p. m.
Southern Clinic.....	493 East 139th Street.....	Daily.....10-12 a. m. Telephone 5702 Melrose	Tuesday....8- 9 p. m.

<b>Brooklyn.</b>	<b>Name</b>	<b>Address</b>	<b>Hours</b>
Main Clinic.....	Fleet and Willoughby Streets..	Daily..... 10-12 a. m. Telephone 4720 Main	Daily..... 2- 4 p. m. Tuesday.... 8- 9 p. m. Thursday.... 8- 9 p. m.
Germantown Clinic..	55 Sumner Avenue.....	Daily..... 2- 4 p. m. Telephone 3228 W'msbury	Thursday.... 8- 9 p. m.
Brownsville Clinic..	362 Bradford Street.....	Daily..... 10-12 a. m. Telephone 2732 E. N. Y.	Daily..... 2- 4 p. m. Thursday.... 8- 9 p. m.
Eastern Dist. Clinic.	108 S. 3rd St., Williamsburg .....	Daily..... 10-12 a. m. Telephone 740 Greenpoint	
Day Camp .....	Ferryboat "Rutherford," foot of N. 2nd St, Williamsburg	Telephone 795 Greenpoint	
<b>Queens.</b>			
Jamaica Clinic.....	10 Union Avenue, Jamaica.....	Monday.... 2- 4 p. m. Telephone 1386 Jamaica	Wednesday.. 2- 4 p. m. Friday..... 2- 4 p. m.
<b>Richmond.</b>			
Richmond Clinic....	Bay and Elizabeth Sts., Stapleton.	Tuesday.... 2- 4 p. m. Telephone 440 Tompkins	Thursday.... 2- 4 p. m. Saturday.... 2- 4 p. m.

### CLINICS FOR COMMUNICABLE EYE DISEASES.

#### Manhattan.

1. Gouverneur Slip. Telephone 2916 Orchard.  
Hours: 9-12 a. m; 2-5 p. m.
2. Pleasant Avenue and 118th Street. Telephone 972 Harlem.  
Hours: 9-12 a. m; 2-5 p. m.

#### Brooklyn.

330 Throop Avenue, Brooklyn. Telephone 5319 Williamsburg.  
Hours: 2-5 p. m.

### HOSPITALS.

#### BOROUGH OF MANHATTAN.

Willard Parker Hospital. For contagious diseases. Foot of East 16th Street.  
Telephone 1600 Stuyvesant. Visiting hours:  
For Diphtheria patients.... 10. a. m. to 12 m. Tuesdays and Sundays.  
For Scarlet Fever patients... 10 a. m. to 12 m. Sundays.

#### BOROUGH OF THE BRONX.

Riverside Hospital. North Brother Island. Telephone 4000 Melrose.  
Mainly for tuberculosis. Visiting hours differ for the various wards, and may be  
obtained on application.

#### BOROUGH OF BROOKLYN.

Kingston Avenue Hospital. Kingston Avenue and Fenimore Street.  
Telephone 4400 Flatbush. For contagious diseases.  
Visiting hours, Tuesday and Sunday—1 to 3 p. m.

#### TUBERCULOSIS HOSPITAL ADMISSION BUREAU.

Maintained by the Department of Health, the Department of Public Charities, and  
Bellevue and Allied Hospitals, 426 First Avenue. Telephone 8317 Madison  
Square. Hours 9 a. m. to 5 p. m.

#### ADMISSION TO HOSPITALS FOR CONTAGIOUS DISEASES.

Requests for removal of patients with contagious diseases must be made at the  
Borough Offices.

### SANATORIUM FOR TUBERCULOSIS.

#### OTISVILLE, ORANGE COUNTY, N. Y. (via Erie Railroad from Jersey City).

Telephone 13 Otisville.

For the treatment of tuberculosis in the earlier stages. Admission through the  
Tuberculosis Clinics and the Hospital Admission Bureau.



